**System Size**

**Function Point Estimation**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Functionality** | **Input** | **Output** | **Queries** | **File** | **Program interface** |
| Customer Search | 1 | 1 | 1 | 1 | 0 |
| Customer Order | 1 | 1 | 1 | 2 | 0 |
| Customer Rating | 1 | 1 | 1 | 1 | 0 |
| Registration | 1 | 1 | 2 | 2 | 0 |
| Customer Pay | 1 | 1 | 1 | 1 | 1 |
| Seller Add Food | 1 | 1 | 1 | 1 | 0 |
| Seller Push Delivery | 1 | 1 | 1 | 1 | 1 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Complexity** | | |  |  |
| **Description** | Total # | Low | Medium | High | Total |
| Inputs | 7 | 5\* **3** | 1\***4** | 1\***6** | 25 |
| Outputs | 7 | 5\***4** | 2\***5** | 0\***7** | 30 |
| Queries | 8 | 4\***7** | 4\***10** | 0\***15** | 68 |
| Files | 9 | 6\***7** | 3\***10** | 0\***15** | 72 |
| Program interface | 2 | 0\***5** | 1\***7** | 1\***10** | 17 |
| **Total Unadjusted Function Point (TUFP) =** | | | |  | 212 |

**The total processing complexity (PC):-**

Complexity is from 0 to 5: (0=no effect on project complexity; 5=great effect on project complexity)

|  |  |
| --- | --- |
| Tasks | Complexity (0-5) |
| Data communication | 5 |
| Transaction Rate | 4 |
| End-user Efficiency | 4 |
| Multiple Sites | 3 |
| Performance | 3 |
| Online Data Entry | 5 |
| Online Update | 3 |
| Total Processing Complexity (TPC)= | 27 |

* **The adjusted processing complexity (APC):-** APC=0.65 + (0.01 \* TPC)

APC=0.65 + (0.01 \* 27)= 0.92

* **The total adjusted function points (TAFP):-** TAFP=TUFP \* APC

TAFP= 212\*0.92= 195.04

* **Converting Function Points to Line Of Code (LOC):-**

|  |  |
| --- | --- |
| **Language/Tool** | **Number of LOC / FP** |
| Python | 53 |
| HTML | 15 |
| SQL | 21 |

* 70% will be done in Python
* 10% will be done in HTML
* 20% will be done in SQL

* **Number of lines of code (LOC )= TAFP \* # of( LOC\FP) \* %**

For Python = (195.04) \*(53)\*(70/100) = 7236 LOC

For HTML = (195.04) \*(15)\*(10/100) = 292.56 LOC

For SQL = (195.04) \*(21)\*(20/100) = 819.17 LOC

So the total LOC=8347.73 LOC

* **Estimating the effort:-**
* Effort = 2.4 \* (LOC/1000)^1.05

=2.4\*(8347.73/1000)^1.05

=22.28 person month

* **Estimating the schedule time:-**

Time = 2.5 \* (effort) 0.38

=2.5\* (22.28) 0.38

=8.13 months

* **Estimating the number of persons:-**  average of # of persons = effort/time

= 22.28 /8.13

= 2.74 persons